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ABSTRACT

Several themes relevant to the personality development and intellectual functioning of children are presented in this position paper. Inferences for the education of Nigerian children are also drawn. Among general factors considered influential in children's intellectual development, three are emphasized: the way in which intelligence is defined, the use of intelligence tests, and the basic communication process involved in learning. An estimate that children in developed countries use 15 to 20 per cent of their mental ability is used to draw attention to the proposition that children in developing countries probably use their mental ability to a lesser extent; and that Nigerian educational planners should consider such prospects a cause for concern. Environmental factors, language, and the home are considered the major influences on personality development of children with implications for Nigerian children seen fundamentally as the need for parent education programs. Cultural factors, which predominate in Nigeria with its diverse tribes, are also discussed as significant influences on personality development. The paper's final section identifies five factors pertinent to the growth and development of intelligence among Nigerian children: the home environment, economic handicaps, nutrition, harsh local medical practices, and competitive nature of child rearing in Nigeria. (Author/DB)

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FACTORS WHICH INFLUENCE THE DEVELOPMENT

OF

INTELLIGENCE AND PERFORMANCE

AMONG NIGERIAN CHILDREN

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In view of recent findings on personality characteristics and development we can assume the existence of a relationship between inherited physical characteristics and behaviour. It is also evident that temperament can be linked with physical characteristics.

1. INFLUENTIAL FACTORS ON THE DEVELOPMENT OF INTELLIGENCE:

Although genetic influence is not wholly responsible for personality characteristics such as "outgoingness" it is yet persistent from childhood through adulthood. Recently, though, the influence of genetic factors on personality characteristics and the development of intelligence has been accepted. "Intelligence" is another human characteristics which is easily influenced by both genetic and environmental factors. It is referred to by many psychologists as - 'relational thinking', the influence of which is greater in personality development. Intelligence occurs when the individual is conscious of the relevance of his behaviour to an objective.

Recently, intelligence has been considered by psychometrics as that which comprised a "g" (general factor), as well as "group" and "specific" factors. "g" accounts for the biggest source of variance between people, and intelligence tests, which test for "g" are still the best single predictive instrument of a person's suitability to engage in intellectual and educational pursuits.

In order to test for "g" many educational institutions have tried to formulate different testing systems. But rather unfortunately an accurate testing system for "g" has not been realized. While some educational institutions have tried the External Examining Governing Bodies, other institutions have come up with their own test packages based on what was supposed to have been taught. Other institutions use the testing system to draw up convenient percentages of expected successful candidates in examinations.

If education is to play a predominant role in the formation of personality characteristics and the development of intelligence, an operational definition of intelligence should be used. But in 1955 associated intelligence with genetic rather than environmental factors. Surprisingly though, this definition was highly accepted during the aristocratic era in Europe.

Children of nobility were easily admitted to places of higher learning due to their genetic rather than environmental factors. The use of Butt's definition may be political rather than anything else but it sure helped aristocracy while the rich became richer and the poor became poorer.

An operational definition of intelligence was later introduced by Spearman. Spearman's definition claims that:

"Intelligence is a capacity which enables man to indulge in rational, constructive thinking."

This operational definition agrees that Intelligence is the ability to profit from education; it is a measure of a person's educability. With this definition, "intellectual functioning" rather than the emotions became a goal for the curriculum in schools and colleges of higher learning.

Let us examine the presently available intelligence tests in different educational systems. The External Examination bodies, having drawn up syllabuses, are able to test for what is expected to have been taught. Since the students who sit for these external examinations are graded on the same curve it becomes even difficult to test students abilities. The passing of such examination is a must if a student is to progress. Students therefore devise means with which they are able to memorize and pass the examinations. The test for a "g" or intellectual functioning is no longer the purpose of such examinations. The invalidity of such tests can also be seen in cases where some schools are not even able to provide good teachers to teach the students. The students rather than the schools suffer when the examination results are out.

Since the course system is becoming very popular in places of higher learning especially in Nigeria, the end of school year examinations and final-year examinations are gradually finding their way out. Compromises are presently being reached to lower the percentages of such examination on the total requirement percentages but the eradication of such examination is not in sight.

It has been realized that the average person uses less than 15 - 12% of his mental ability during his entire lifetime. It has also been

discovered that poor environmental factors coupled with poor schooling during childhood and infancy reduces 15 - 20% of mental development even with basically intelligent people. The use of a small portion of our intelligence handicaps us in everything we do; be it in employment, schooling or social life.

The inability of humans to develop to their fullest capabilities and use higher percentages of their mental abilities is becoming more dangerous in recent years. In a developing country for instance, where the transition from a simple society to a complex industrial one is happening at such an alarming rate, it is becoming a necessity for people to develop a higher percentage of their mental abilities in order to cope with the speed of technological advancement which has been the offstripping of industrialization and urbanisation.

Many anthropologists, in expressing their opinions have claimed that the only hope for many developing countries is the return to simple life. What they tend to forget though, is the fact that in this day it is absolutely impossible for any group of people, not to mention a nation, to remain unchanged in a rapidly changing world.

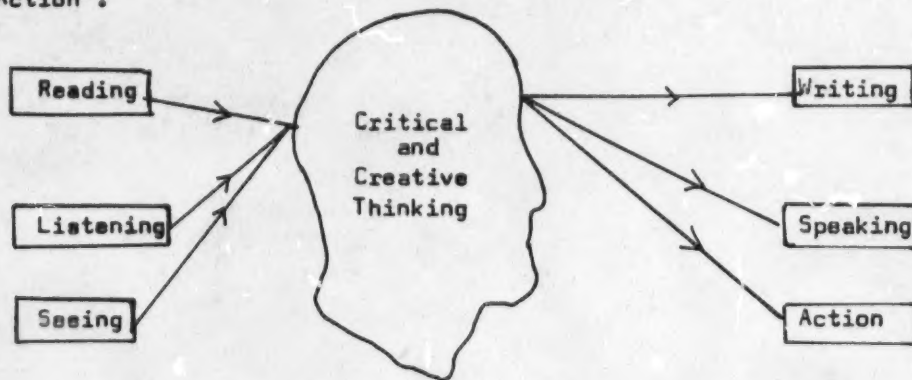
It is therefore a necessity for Nigeria, or any other developing country, to re-evaluate her educational goals in order to help her citizens develop greater percentages of their mental abilities.

The use of 15 - 20% of one's mental ability can be compared to the working engine of a car. It's like comparing it to a four-cylinder engine car which is only operating on two cylinders. Such engine does not perform very well; so are the human mind. The 15 - 20% of the developed mind is easily overworked. People in such states of mind quickly accept without any question anything imposed on them. In such a culture people tend to withdraw. They easily believe their plight is the work of faith. Superstition in the midst of fear flourishes, and the belief in the super-natural becomes a way of life.

It will not be over-emphasizing more to claim that if the 15 - 20% development of mental ability is the average world percentage, a lesser percentage may be the case in some areas, mostly developing countries.

INTELLECTUAL FUNCTIONING THROUGH LEARNING

Firstly let us find out how we learn. The core of any learning, whatever the subject area, is "communication". One's intellectual growth and personality development depend on the individual's mastery of the communication skills such as "Reading", "Listening", "Seeing", "Writing", "Speaking" and "Action".



Communication Skills - Basis for all learning.

Secondly, what happens when you learn? Learning occurs on an individual basis and each person learns at his or her own rate. Does our present educational system permit children to learn at their own rate? Regardless of the rate, however, the mind must go through three phases in learning:-

- (1) The mind receives information through reading, listening and seeing.
- (2) The mind absorbs and stores this information which it then uses as the basis for thinking.
- (3) The mind uses this accumulated information for self-expression - for communication - of thoughts and feelings through speaking, writing and actions.

In order to master any subject or task the individual must go through all three phases.

A redefinition of our country's educational objectives is urgently

needed. When formal schooling was introduced both theory and practice were stressed. But as problems emerged, mostly financial, theory gained the upperhand and the practical aspects suffered. People will never learn to drive very well if they only read driving manuals. Auto mechanics students won't be adequately trained if their ability to assemble car engines is only based on listening to auto mechanic lectures. Practice is as important as theory; if the communication skills are to be stressed within any country's educational system.

However, people learn rapidly and effectively when they learn by doing which takes one through all three phases of communication skills. The key to using most or all of one's intelligence is to be trained by a "learn by doing" method in each communication skill. This applies to any subject or task, manual or academic.

Only few people grasp the knowledge of how to listen, 'observe', 'speak', 'write' or 'solve' problems and the last but not the least - to "think". It is tragic that educational curriculums in our country, like most other developing countries are not geared towards such skills. Due to this lack of training in the communication skills the average person remembers only 10% of what he reads, 20% of what he hears and 30% of what he sees.

If educational curriculums can be formulated around communication skills man may be able to remember at least 50% of what he reads or hears, write logically and clearly, speak effectively and solve a majority of his every day problems. If such a curriculum can be formulated man's intellectual growth and personality development will be of such vast significance. Nations will benefit in terms of rescued talent and the ability to solve problems.

II INFLUENTIAL FACTORS ON PERSONALITY CHARACTERISTICS

Another controlling factor which influence the formation of personality characteristics is the environment. There is a great interaction between genetics and environmental factors which influence personality characteristics. Without the inherited foundation, there could be nothing on which the environment could operate. Language is acquired by children long before they engage in formal schooling. This is possible through enculturation

with parents. Through this process also the child learns the freedom and the limitations within the culture.

Needless to list the limitations that surrounds child-rearing practices within the Nigerian culture, the Nigerian child quickly learns, mostly through fear, that he is in an adult world. A society in which a reasonable percentage hold on to the beliefs that children should be seen not heard. Do these traditional beliefs affect the growth and development of our children? Does our culture encourage or discourage creativity in our children? Is "inquisitiveness" a commonality among children of various cultures? Is this a way children are able to study their environments? Does the average Nigerian parent find time to answer the questions put forth by their children? Does a child's environment affect his growth and development? These questions can be answered by Nigerian parents and teachers.

If the above questions concern mostly parents is it not advisable therefore for our country's educational system to include among its goals "Education for Parents"? When parents are made aware of the needs for favourable environment, children may be adequately prepared for formal schooling such as pre-school, kindergarten and primary education and possibly better-prepared for secondary and higher education.

Included among those environmental factors which affect the formation of personality characteristics are: cultural; national; social class; and experience, which are generally uncommon.

Although diologists have been able to uphold that the temperamental differences between boys and girls are largely due to biological differences. Anthropologists have also claimed that temperamental differences can be reinforced or wiped out through cultural child-rearing practices. Some cultures have succeeded in rearing their girls to grow and be tough like boys, other cultures have stressed dependence in girls and independence in boys. In adult-oriented societies both boys and girls are encouraged to be submissive to the adults. Threats and the fear of the unknown create so much fear in everybody whereby people become very

submissive and conforming. Recent observations have shown that a culture that teaches submissiveness is easily able to produce a conforming society where individuality and leadership is nowhere to be found.

Traditional customs are not condemned. The realization of the effects of some of these traditions on the growth and development of our children should be the concern of parents and teachers. Maybe together with parents and teachers we can come to grips with child-rearing practices that will promote growth and development in our children.

While some cultures encourage the importance of social conduct of the 'good' or 'just' other cultures encourage aggression and survival ethics. Societies with competitive educational systems unconsciously create an atmosphere that lacks cooperation. If children are expected to be just, considerate and good, the society must create such an atmosphere. Children are apt to copy parents, teachers and other adults within the society. The need and struggle to achieve is not inherited, it is created.

Version in 1969 claimed that:

"The style of life of different cultures mostly influences the type of intelligence developed by persons who are members of these cultures. In societies where there is an emphasis on conformity and little emphasis on individual responsibility, and where also magical beliefs are accepted, rational thinking and analytical perception are inhibited. Similarly when the society encourages initiative, more practical - spatial and inductive abilities are found among children than in societies where such encouragement is not given".

Margaret E. Wood also claimed in 1973 that:

"When we consider the effects of parental membership of a social class, particularly in the English-speaking world, we find evidence that class membership influences

a number of behavioral variables, which in their turn effect personality development. Achievement motivation, the development of moral feeling and behaviour, the development of language and of thinking, and the growth of intelligence, and are influenced by social class norms and by class-based child-bearing customs.²

Other psychologists and anthropologists who have contributed to most findings on the effect of cultural, national and social influences on the formation of personality characteristics and the development of intelligence are listed in the Bibliography.

Parental influences and childhood experiences are among other factors which influence the formation of personality characteristics and the development of intelligence. Parental characteristics and pre-natal and familiar influences play a great role in the development of personality characteristics in children.

There is evidence which proclaim that pre-natal nutritive factors have a lasting effect on intelligence of children, most especially when mothers suffer dietary deficiencies during pregnancy.³

In a symposium on Cognitive Development and Socialization at the British Psychological Society Conference in 1971 Hamilton also claimed that:

"Children who are being brought up by rejecting mothers have more difficulty in applying logical, inductive and deductive thinking process than children who have been brought up by warm and accepting mothers".⁴

Although it is not possible in this area of research to control influential variables some findings has been realized:

Firstly, it has been realized that where parents are warm, loving, autonomy granting, respectful of their child as a valued individual, able to enhance his self-esteem, and yet also able to be authoritative (though not authoritarian¹), a child has the best opportunity to develop to his fullest capabilities.

Secondly, there is evidence that the behaviour of authoritarian and power - assertive parents tend to inhibit and strain a child's development, and that such behaviour has a tendency to produce children who, when adult, will be equally rigid and assertive in relation to their children in turn and in relation to persons inferior to them.

Thirdly, it was also realized that children who had experienced harsh parental discipline, with the giving of love conditional upon behaving in an approved manner, and where the family was structured hierarchically, that such children were often anti-semitic; had a rigid personality; saw personal relationships in terms of an exercise of power by some people over others; and tended also to project a number of unacceptable impulses on to other persons.⁵

Fourthly, it was realized that personality qualities "develop in the interpersonal relations of the family." They arise more or less spontaneously in the social interaction of the child with parents. The earliest distinctive responses of the child to persons in his social environment may be said to be a resultant (a) of his genic traits (b) of parental responses to him and (c) of special factors in the situation; such as illness"⁶. These patterns, according to Burgess and Locke, once fixed are not subject to modification.

Fifthly, children who had enjoyed a culturally enriched infancy may have some effects permanently embodied in their nervous systems?

The last but not the least of the findings deals with the weight of a baby's brain which increases by 350 percent in the first two years. In the first two years there is a rapid growth in the cortical brain cells - that is, of the neurons and a major change occurs in the interconnections between the brain cells. By four years of age the last stage of dendrogenesis is attained. Ritchie claims that:

It is not unreasonable to suppose that experience which occur during the first four years of life, and particularly during the first two years might affect the nature of dendrite growth and consequently of intellectual development.⁸

It should be mentioned at this juncture that other environmental factors in the child's development also play an active role. It is therefore misleading to consider the child's growth through the early stages of development alone. Later experience, particularly in relation to cognitive development, influence the formation of personality characteristics of the child. Since the importance of a good environment is stressed earlier, it is therefore important for the schools and the homes to provide such environments.

In view of the fact that children learn with advancing age to deal with the social, emotional and cognitive aspects of their lives through factors such as play activities, pre-school, kindergarten and elementary school educators and mostly parents should provide such activities.

In a cross-cultural study of Indian children in South Africa, a drop of 5 IQ points was reported for each year of delay entry. Also, studies among children within western culture have shown that children who continued with their education beyond age fourteen have shown higher IQ developments as compared to children who stopped their formal schooling at age fourteen.⁹

It is not an over-exaggerating to conclude from these findings that if such an investigation can be launched among adults in Nigeria, it can be realized that the growth and development of adults who stop formal schooling between ages fourteen and eighteen cannot be compared to those adults who continue to learn pass age twenty. Dewey once claimed in his book: "Democracy and Education" that once education stops, growth stops." In view of this claim Nigerian educational systems must make provisions for continuous education either through the form of public libraries or formal schooling through adult education.

"Maternal deprivation" is also a contributing factor to the formation of personality characteristics. This term according to many psychologists does not mean depriving a child of his or her mother alone. Instead the meaning can be expanded to include:

- (a) Complete loss of a mother or mother substitute;

- (b) Multiple mothering in institutions;
- (c) Distortions in the quality of mothering in institutions;
- (d) Rejection;
- (e) Over-protection;
- (f) Ambivalent attitudes on the part of the mother towards her child;
- (g) Temporary separation.

Of the various meanings given to maternal deprivation, separation from the mother was the crucial variable in determining later neurotic and/or criminal behaviour.¹⁰ Another study seem to indicate that a number of variables, particularly the lack of stimulation which really always accompanies institutional care following loss of the mother very early in life, can all combine together in such circumstances to produce problem behaviour.¹¹

If the above findings are true could the growth and development of the Nigerian child be affected by loss of mother in instances when the mother is kicked out of the house? Or could it be affected in instances of multiple mothering - an effect of either cultural extended family units or polygamous home's effect? Or instances where children themselves mistakenly become mothers overnight? Or through instances of where some parents display ambivalent attitudes towards their children?

Institutions such as hospitals and motherless homes are urged to be sensitive to the needs of the children under their care. Schools can provide remedial solution rather than worsen the plight of these children who suffer from maternal deprivation. The signs of such disturbances can be in the form of intellectual retardation, language retardation or disturbances in social and personal relationships. Also acute unhappiness and a feeling of insecurity can be symptoms of such deprivation. Children also display violent and active protest, which is sometimes quickly followed by a reflection of adults, apathy, withdrawal and lack of activity. The period of lack of activity is easily mistaken by unobservant adults and teachers to mean wisdom. Instead it is a stage of "mourning".¹²

Adoption agencies in developing countries, since they do not possess the wealth with which to do research as the advanced countries are warned of their timing in putting children up for adoption. The most critical period when children express emotional disturbances is around seven months when they react to strangers. While babies placed for adoption as early as three months showed some disturbance 80% of babies adopted at age six months were disturbed immediately after being placed.¹³

FACTORS WHICH AFFECT THE GROWTH OF INFLUENCE AMONG
NIGERIAN CHILDREN

From recent research findings in Nigeria certain stress producing factors play an immense role in the growth and development of intelligence of Nigerian children. Such factors include:

(i) The Home Environment - Some of the children are born outside marriages. Recent findings have claimed that a child born within broken marriages is more likely to be delinquent even under the conditions of affluence. When a child is deprived of his natural parents or constant affection and care, the child's psychological development is affected and this in turn affects his intelligent growth. Researches in this area include: McDermott (1968), Toomin (1974), Schoyer (1980). The divorce pattern observed by McDermott has been realized to be the same in Nigeria. Divorce is highest during the early years of marriage hence the victims are always young children. Separation from parents is also often brought about by the growing mobility of labour across state and boundary borders.¹⁴

Toomin (1974) also expressed the idea that the oedipal resolution which occurs between ages three to six years requires the presence of both parents for the child to resolve this conflict. The absence of either parent results in an emotional stress which in turn may affect the growth intelligence of the child. Schoyer in his own findings claimed that the child's identification process is disrupted, he experiences an unrealistic sense of guilt and also becomes anxious whether or not the parents won't divorce him as they have divorced themselves.

(ii) Economic handicap is also a factor which influence the growth

of intelligence in children. If the claim of the psychoanalysts that man's self-perception is more closely interwoven with his environment than he is consciously willing to acknowledge, is true, then economic handicap may contribute to a negative self-perception. Some of the problems of poverty include inadequate housing, too many siblings, inferior sanitation, shabby clothing and lack of money. Some of the houses of the poor are infested with rats and cockroaches, the rooms are over-crowded and the children turn to the streets as their playgrounds. As a result of constant struggle for survival in a highly competitive environment most of the children tend to be aggressive, very selfish and highly irritable. In this kind of environment the growth and development of the child's intelligence is easily affected negatively.

(iii) Nutrition is another factor which affects the growth and the development of intelligence of the Nigerian child. From medical records in Nigerian hospitals maternal malnutrition is one of the major causes of low birth weight. It is unfortunate that because of certain traditional beliefs many pregnant mothers in this society forbid certain nutritive food during pregnancy. Another finding is the fact that the knowledge of balanced diet is not easily understood among many uneducated people. They tend to eat too much of starch and less protein and vegetables. Coursin (1972) in a research claimed that :

"Malnutrition may produce structural and metabolic derangements in the central nervous system that can limit its capabilities and performance".¹⁷

Fortunately in Nigeria breast-feeding has always been popular among most leading tribes. But as soon as the process of weaning is initiated, children of the poor are subjected to inadequate nutrition. The main weaning foods in Nigeria can be said to be gruels and pap among these families. Omololu (1972) claimed that such gruels are 90% water; which at best contain .5% protein and a caloric value of 40-50 calories per 100 ml. This would be compared to breast milk which has a protein content of 1.2% and a caloric value of around 70 calories per 100 ml.¹⁸

(iv) Coupled with poverty is the use of harsh local medicines such as cow urine which is still used to treat convulsion. It has been realized that this could lead to dehydration and brain damage which may in turn affect the development of intelligence of the child.

(v) The competitive way in which children are reared in Nigeria is a strong factor which should be considered as detrimental to the growth of intelligence of the Nigerian child. The society's child-rearing practices puts more strain on boys, first borns and children from polygamous homes. The pressure on boys in Nigeria can be compared to the pressure on first borns in many developed countries. This is not to say that first borns in Nigeria are not pressurized. The position of the first born is so generally magnified that the child, in order to be successful, drives himself to frustration, rebellion and in extreme cases some of them breakdown mentally when the brain is overworked.

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